

WHAT IS CLAIMED IS:

1. A method for forming a scribed groove at the surface portion of a wafer by using a cutting part having a cutting edge, the method comprising the step of
5 moving the cutting part such that the cutting edge forms a path having the shape of an inverted trapezoid.
2. A method as defined by claim 1, the method further comprising the steps of:
 - (a) picking up the image of the cutting edge; and
 - (b) based on the picked-up image data, adjusting the angle of the cutting
10 edge against the surface of the wafer.
3. A method as defined by claim 1, the method further comprising the steps of:
 - (a) measuring the thickness of the wafer; and
 - (b) in accordance with the measured thickness, adjusting the entry position of the cutting part into the wafer by combining the horizontal and vertical
15 movements of the cutting part.
4. A method as defined by claim 2, the method further comprising the steps of:
 - (a) measuring the thickness of the wafer; and
 - (b) in accordance with the measured thickness, adjusting the entry position of the cutting part into the wafer by combining the horizontal and vertical
20 movements of the cutting part.
5. A scribing apparatus, comprising:
 - (a) a cutting part that has a cutting edge and that forms a scribed groove at the surface portion of a wafer;

(b) a horizontally moving portion that moves the cutting part horizontally to form the scribed groove;

(c) a vertically moving portion that moves the cutting part vertically to form the scribed groove; and

5 (d) a controlling section that:

(d1) expresses the location of the cutting edge as the horizontal coordinate and the vertical coordinate; and

(d2) based on the coordinate data, operates the horizontally moving portion and the vertically moving portion.

10 6. A scribing apparatus as defined by claim 5, the scribing apparatus further comprising:

(a) an image pickup portion that picks up the image of the cutting edge; and

(b) a cutting-edge angle-adjusting portion that, based on the picked-up image data, adjusts the angle of the cutting edge against the surface of the wa-

15 fer.

7. A scribing apparatus as defined by claim 5, the scribing apparatus further comprising a thickness-measuring portion that measures the thickness of the wafer.

8. A scribing apparatus as defined by claim 6, the scribing apparatus further
20 comprising a thickness-measuring portion that measures the thickness of the wafer.